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ABSTRACT

At Cuyahoga Community College (CCC), the College-Level Examination Program (CLEP) for Introductory Macroeconomics Test was evaluated to determine if it was an effective tool for providing credit by examination for the college's Principles of Economics course. Though students at the present time (1991) can take the CLEP to obtain up to 45 credits at CCC, the test is not currently used for credit in the course area of economics itself. Base-line information for the exam was obtained in 1974 when the test was administered to a reference group of 2,259 students completing macroeconomics at one of 36 colleges. To develop a common understanding of concurrent validity, the test makers compared test results with the final course grades of the students in the reference group. The American Council on Education recommended that the minimum test score of the students in the reference group who earned a final course grade of C be used as the level of success necessary to obtain college credit. Concerns with the test included content validity, which was difficult to judge, and the age of the test, which was last revised in 1980. An additional problem existed in the fact that the CLEP was solely a cognitive measure, whereas factors such as attendance, participation, attitude, and intent often influence final course grades. In addition, the relationship between a C grade issued at the colleges involved in the base-line study (only four of which were community colleges) and a C grade issued for the CCC course was unclear. Therefore, providing credit by examination in the area of economics at CCC using the CLEP test in its current form, without change and further investigation, was not recommended. (JMC)

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REVIEW AND EVALUATION OF THE COLLEGE LEVEL EXAMINATION PROGRAM FOR INTRODUCTORY MACROECONOMICS FOR PROVIDING CREDIT BY EXAM

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Review and Evaluation of the College Level Examination Program for Introductory Macroeconomics for Providing Credit by Exam

PURPOSE:

The purpose of this report is to evaluate the use of the College-Level Examination Program (CLEP) for Introductory Macroeconomics Test to determine if it is an effective tool for providing credit by examination for the course Principles of Economics 161 offered at Cuyahoga Community College. At the present time students may take the CLEP to obtain credit by examination (ref. CCC catalogue pp. 234-5) for up to 45 credit hours. IT IS NOT, HOWEVER, MADE AVAILABLE TO STUDENTS FOR CREDIT IN THE SPECIFIC AREA OF ECONOMICS.

DESCRIPTION:

The College-Level Examination Program was created and is owned by The College Entrance Examination Board. The examination for Introductory Macroeconomics attempts to cover material that is usually taught in a one-semester undergraduate course in the principles of economics. It was most recently revised in 1980 and consists of 90 multiple choice questions administered in two 45 minute periods. These tests are graded by the College Board Testing Center with results forwarded to Cuyahoga Community College. An optional 90 minute free response section employing 3 or 4 essay questions may be administered at the testing center, but it must be graded at the receiving college.

Base-line information for the exam was obtained in 1974 when the test was administered to 2259 students completing macroeconomics at one of 36 colleges in the United States, and the results were reformulated under the revised 1980 edition.

Validity, that is weather the test measures what it is supposed to measure, was based on the correlation between test score and final course grade score. The concurrent validity measured 0.65. Reliability, the degree to which a test consistently measures what it is intended to measure, based on the Kuder-Richardson Formula 20 was measured at 0.9. The standard error of measure indicated that with 95% certainty, the candidates score would be within plus or minus 5.9 points of his actual score.

Power rather than speed is the preferred testing criteria in economics. Speediness does not, however, appear to be a factor since over 87% of all candidates completed the exam within the allotted time period. Difficulty, as measured by delta, was 13.6 (mean delta=11.9) for the 1057 student reference population used in Spring, 1980, indicating that the test was difficult for the students taking it.

EVALUATION:

From an administrative point of view, it is extremely useful to be able to have an independent testing center administer generalized evaluative testing such as the CLEP for Macroeconomics. Not only does it remove the burden of testing from Cuyahoga Community College, but it provides an independent evaluation of student accomplishments where actual classroom grades are not available. Were CCC departmentally or individually developed tests to be administered in lieu of CLEP, some faculty members might be so biased by the belief that only their own and like classroom experience could result in the appropriate academic exposure and achievement that the tests might be unreasonably difficult and content coverage with 'home-made' exam due to the lack of resources available to properly construct these exams.

Content validity is difficult to judge, and to some extent is a function of individual professional differences. A review of the content of CLEP Macroeconomics indicates only

minor variances from current practice at CCC to the extent that content can be judged by comparison with the current text in use (McConnell 11th Edition) and the writer's own and other CCC professors' known practices. However, it is not clear from the broad subject areas noted in the CLEP summary, specifically what detail might be contained; and, as a result, CLEP exams might vary dramatically in their content validity as determined by CCC course content.

Perhaps the most damaging aspect of the CLEP for Macroeconomics is the age of the test itself. Since macroeconomics is an evolving science, it has changed and grown considerably over the eleven years since the CLEP exam was last revised. Thus rational expectation theory, the new classism of supply-side economics, accelerationists' views and the seeming dimunition of Keynes, Phillips and others must most certainly be ignored by a test that is eleven years old. The CLEP would also ignore major changes in the very important area of banking ranging from the Deregulation and Monetary Control Act of 1980 to the troubles in the banking and thrift industries to the elimination of the FSLIC.

It is interesting to note that only four community colleges were included among the 36 schools used in the original baseline analysis. None of the schools were from Ohio, and none were on the quarter system. Additionally, there seems to be little data on the normalcy of students in the test group including an apparent failure to randomly select the test group (weakening the statistical analysis) or to create a comparative test group.

To develop a common understanding of concurrent validity the test results were compared with final course grades (known for 73.6% of the test takers). After correcting for guessing by subtracting one fourth of the number of right answers, the test score was compared with the final course grade earned by each student. The American Council on Education then recommended that the minimum score of the students in the reference group who earned a final course grade

of 'C' be used as the level of success necessary to obtain credit for Principles of Macroeconomics. This results in a raw score of 48 being required to obtain credit for the course by exam.

Several concerns arise from this procedure. First, there is no indication of what standard was used to determine each student's final course letter grade for the course at each college. In fact, it is likely that standards varied considerably from school to school and instructor to instructor. This may account for the wide range of 11.9 on the test in the variance from the mean 'C' score. Frequently, factors such as attendance, participation, attitude, and intent influence final course grades. An exam like the CLEP, which seeks to measure cognitive learning alone provides information that is not readily comparable to course grades. Though a correlation of .65 is fairly high, it only indicates that cognitive learning accounts for about 42.25% of the criteria for grading. An exam which seeks to measure cognitive learning alone provides information that is not readily comparable to course grades, and the test makers have make a 'giant leap' to conclude that the mean test scores for a 'C' grade student indicates a satisfactory level of performance. It might, in fact, have been more meaningful to bring together the experts in economic education to decide what constitutes average (C) learning performance, and then apply these standards rather than make the above assumptions.

It remains an open question, as well, as to what a 'C' grade at the colleges involved in the study means in relationship to a 'C' grade issued at any one of the campuses of CCC. It is not clear at all that what the American Council on Education considers an acceptable 'C' level score is the equivalent to a 'C' at CCC. The author finds himself philosophically at odds with the test makers in their assumption that such a test measures what is commonly considered at CCC as criteria for passing Principles of Economics 161 with a 'C'. Unless the examination

is updated in its economic content and correlated with actual CCC student performance to provide further information on the relationship of the test to our courses, it cannot reasonably be inferred that CLEP adequately determines whether a student meeting CLEP standards would have passed the CCC course Principles of Economics 161 with a 'C'. The test may in fact be too stringent, though it is not possible to know without further research. It must be recognized that CLEP falls short, as well, because it fails to measure the other criteria commonly used at CCC.

RECOMMENDATIONS:

If it is necessary to provide credit by examination in the area of economics (the writer is unaware of any demand by students for this opportunity), providing the CLEP in its current form without change and further investigation cannot be recommended. However, should one choose to ignore all other performance criteria and base credit on like achievement in cognitive learning to that of CCC student, it would be desirable to administer the CLEP examination to all Principles of Economics students at all campuses during one or more quarters to establish the baseline for 'C' level performance. That criteria would then be used to determine the appropriate CLEP score and thereby allow for the use of the independently administered CLEP Macroeconomics Exam. However, to do so would ignore the outdatedness of the current CLEP exam and may fail to adequately consider the measure of achievement required at CCC.

A second and preferable alternative would be for the economics faculty at CCC to develop one or more tests using universal learning criteria taken from their own course based on what their own students were expected to learn before obtaining a course grade of 'C' or better. Appropriate test evaluation and retesting of the exam would be necessary to obtain the desired validity and reliability. Such an exam would then by administered at the college, and

should present a more adequate and equitable means of extending credit by exam.

In all of this it should be remembered that testing is, in and of itself, an imperfect science at best. To attempt to simulate an experienced professor's evaluative judgement through the application of a single exam simply fails to acknowledge the difficulty and complexity of student evaluation. It would seem that expedience is often the reason colleges adopt such methodology, but comprehensive testing falls far short of achieving the ends we call academic excellence.

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